

ABSTRACT

A storage and retrieval unit comprises in a known manner a supporting carriage which is movable along a rack aisle on at least one substantially horizontal supporting rail. A lifting platform intended for receiving storage items is taken along by the supporting carriage in the horizontal movement and can be moved relative to it in the vertical direction with the aid of a lifting apparatus comprising at least two traction means on which the lifting platform is suspended. In order to prevent the lifting platform from swinging out in the lateral direction, a stabilising device is provided. The latter comprises a stabilising carriage which is movable by means of its own drive along at least one guide rail running at a vertical distance from and parallel to the supporting rail. A substantially rigid connecting structure having a horizontal extension component is articulated both on the lifting platform and on the stabilising carriage. The horizontal distance between the lifting platform and the stabilising carriage is changed by means of a control system, by corresponding movement of the stabilising carriage, in such a way that the lifting platform can perform only the desired, in particular vertical, movement relative to the supporting carriage. This storage and retrieval unit has only very small masses which can oscillate and are to be accelerated.